

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 09/719,389
Applicant : David Holliday et al.
Filed : 06-25-2001
TC/A.U. : 2424
Examiner : Farzana E. Hossain
Docket No. : 2365-105
Customer No. : 6449
Confirmation No. : 8225

APPELLANTS' BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

MAIL STOP – Appeal Brief -- Patents

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The following comprises the Appellants' Brief on Appeal from the rejection, dated March 19, 2009, of claims 1-18 and 22-40 (now twice-rejected). This Brief is timely filed on August 19, 2009, within two months of the June 19, 2009 Notice of Appeal.

Appellants had previously appealed the final rejection dated June 18, 2008 and filed their first Appeal Brief on December 9, 2008. In the March 19, 2009 Office Action, the Examiner indicated that, in view of the first Appeal Brief, prosecution has been reopened and new grounds for rejection set forth. Applicants then filed their Notice of Appeal on June 19, 2009. According to the March 19, 2009 Office Action, Appellants' previously-paid appeal brief fee can be applied to this new appeal. Accordingly, no fee is believed due.

I. REAL PARTY IN INTEREST

The real party in interest is British Sky Broadcasting Limited.

II. RELATED APPEALS AND INTERFERENCES

There are no other prior or pending appeals, interferences or judicial proceedings known to Appellants, the Appellants' legal representative, or assignee which may be related to, directly

affect or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-18 and 22-40 are pending and are rejected. Claims 19-21 have been cancelled.

IV. STATUS OF AMENDMENTS

On August 7, 2009, Applicants filed an Amendment after Appeal Under 37 C.F.R. 41.33(a) to amend dependent claim 12 by changing the term “vanes” to “varies”. This amendment was made address the objection to claim 12 stated in the Office Action of March 19, 2009 and to place the claims in better condition for consideration on appeal. The Amendment also amends the specification to address the objection to the specification by incorporating explicit antecedent basis for the claim terminology: “receiving program data broadcast from one network at a faster rate than the other network.” To date, applicants have not received an indication of whether the amendments have been entered. The Claims Appendix below reflects the change to claim 12 as if the proposed amendment to claim 12 had been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1:

The subject matter of claim 1 embodies a receiver (3) (Figs. 1, 2; page 8, lines 14-15) for receiving television signals in a plurality of channels including compressed program schedule data (page 1, line 15 - page 2, line 9) and for outputting signals defining an image of the broadcast events in the program schedule for display on a television screen (2). (Figs. 1, 2; page 10, lines 13-16).

The receiver includes “means for receiving data defining two versions of a dictionary representing text portions,” a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the “means for receiving” includes a processor (23) that is responsive to control signals from a remote control unit (28), data included in the signal received by the dish

antenna (4), and data stored in the memory units (25-27). (Fig. 2; page 11, lines 6-9; page 15, lines 15-22). Two versions of the dictionary are normally transmitted. (page 16, lines 6-8).

The receiver further includes "means for expanding the programme schedule data by identifying corresponding text portions in the dictionary," a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the "means for expanding" includes the processor (23) executing software configured for using compressed strings transmitted with the signal to look up the complete text in the appropriate dictionary and to reconstruct the full text of the page. (page 15, lines 15-17; page 17, lines 4-7).

The receiver further includes "means for determining in which version of the dictionary the corresponding text portion is stored," a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the "means for determining" includes the processor (23) executing software which stores only one version of the dictionary at a time, e.g., information relating to the present week's programming or the next week's programming, and determines, each time the dictionary is broadcast, the appropriate dictionary, e.g., this week's or next week's, and looks up the complete text in the appropriate dictionary. (page 16, lines 11-19; page 17, lines 6-7). The appropriate dictionary is determined from the compressed text string (60), which includes a version identification field (61). (Fig. 4; page 16, lines 2-3).

The receiver further includes "means for constructing the image of events using the identified corresponding text portions," a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the "means for constructing" includes the processor (23) executing software which looks up a complete string of text corresponding to the compressed text (62) of the compressed text string (61). (Fig. 4; page 16, lines 3-5; page 17, lines 5-7).

The receiver includes "means for storing only the most recently accessed version of the dictionary," a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the "means for storing" includes the processor (23) executing software configured to store in memory, e.g., RAM 26 (Fig. 2; page 15, line 17) the most recently accessed dictionary. (page 16, lines 15-16).

Dependent Claims 4 and 23-25

Claim 4 depends directly from claim 1, and claims 23, 24, and 25 depend indirectly from claim 1 via intermediate claims 2, 3, and 22 respectively. These claims recite that the text portions comprise a short event name. (page 17, lines 8-13).

Independent Claim 9:

The subject matter of independent claim 9 embodies a receiver (3) (Figs. 1, 2; page 8, lines 14-15) for receiving television signals in a plurality of channels including compressed program and other services provided by a broadcaster. (page 1, line 15 - page 2, line 9).

The receiver of claim 9 includes “means for storing a reference channel set identity and one or more reference channel subset identities,” a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the “means for storing” includes the processor (23) executing software for storing – on, e.g., memory (25), (26), and/or (27) – a reference channel identity, e.g., a bouquet identity (70), and one or more reference channel subset identities, e.g., one or more sub-bouquets (71) – (75). (Figs. 2, 5; page 18, lines 7-16).

The receiver of claim 9 further includes “means for comparing the channel identity and channel subset identity for a channel in a received signal with the reference channel and channel subset identities,” a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the “means for comparing” includes the processor (23) executing software configured to receive and store bouquet and sub-bouquet ID’s corresponding to the subscriber’s location, and this information may stored on a viewing card. (page 18, line17 – page 19, line 3). The receiver/decoder further includes a conditional access control circuit (16) which uses data stored on the viewing card (e.g., smart card (16a)) to determine whether the viewer can access a particular channel. (Fig. 2; page 9, lines 8-11).

The receiver of claim 9 further includes “means for outputting the received television signal for display of the programme or other services defined thereby depending on the comparison,” a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the “means for storing” includes the processor (23) executing software configured to output the signal for display if the viewer is authorized to access the particular

channel. (Fig. 2; page 9, lines 8-11).

Claims 12 and 27-29

Claim 12 depends directly from independent claim 9, and claims 27, 28, and 29 depend indirectly from claim 9 via intermediate claims 10, 11, and 26 respectively. These claims recite that each channel number has an associated order channel number which varies on a channel subset basis, and the receiver comprises means for displaying lists depending on order channel number. The structure corresponding to the “means for displaying” includes processor (23) executing software configured to read attributes given to services on a sub-bouquet basis, wherein the order number is used to define the order in which services appear in the EPG grid and listings. (page 19, lines 16-22).

Claims 13, 30, 31, and 33

Claim 13 depends directly from independent claim 9, and claims 30, 31, and 33 depend indirectly from claim 9 via intermediate claims 10, 11, and 26 respectively. These claims recite that each channel includes one or more indicators, and the receiver comprises means responsive to the indicators for controlling display of information. The structure corresponding to the “means responsive to the indicators” includes processor (23) executing software configured to read attributes given to services on a sub-bouquet basis including navigation and display indicators. (page 20, lines 1-6).

Independent Claim 14:

The subject matter of independent claim 14 embodies a receiver (3) (Figs. 1, 2; page 8, lines 14-15) for receiving television signals in a plurality of channels. The signals include sorting data defining a sorted list and scheduling data defining a schedule of programme events. (page 20, lines 8-9).

The receiver of claim 14 further includes “means for sorting the scheduling data depending on the sorting data to produce output signals defining an image of selected events in the programme schedule for display as a sorted schedule on a television screen in an order

depending on the sorted list,” a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the “means for sorting” includes the processor (23) executing software configured to compute index lists of events sorted by sorting data, such as time or alphabetically, at the head end and to transmit the sorted index lists. (page 20, lines 13-14). Using these index lists, the software is able to display the programs in a sorted format by starting time order or by alphabetic order by title. (Fig. 6; page 20, lines 15-18; page 26, lines 10-13).

Independent Claim 16:

The subject matter of independent claim 16 embodies a receiver (3) (Figs. 1, 2; page 8, lines 14-15) for receiving television signals in a plurality of channels. The channels are broadcast in a first broadcast network, such as a digital satellite television network, including programme schedule data for the first network (such as a separate electronic program guide (“EPG”) for the satellite network), and the channels are broadcast in a second broadcast network, such as a terrestrial broadcast, that includes programme schedule data for the second network (such as a separate EPG for the terrestrial network). (page 21, lines 8-14). Programme schedule data is broadcast in the first network (e.g., the digital satellite television network) at a faster rate than in the second network (e.g., the digital terrestrial television network).

The receiver includes a cache store (26a) for storing a portion of programme schedule data for the first and/or the second network transmitted from time to time in at least one of the channels broadcast in the first network and/or the second network. In one embodiment, the satellite EPG is configured to cache data as and when required, taking information from the EPG transponder of the satellite network. (page 21, lines 15-17). In another embodiment, the full schedule is “trickle” transmitted for the terrestrial network and the complete schedule is stored in the receiver's cache memory. (Fig. 2; page 22, lines 3-6). In still another embodiment, sections of the schedule are obtained as required from the fast continuous transmission on the EPG transponder of the satellite service, and the schedule for the terrestrial listings schedule are also transmitted in the data transmitted on the satellite EPG transponder. (page 22, line 22 – page 23, line 4).

The receiver of claim 16 further includes “means for decoding the data in the cache store for display of a programme schedule of the first or second broadcast network,” a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the “means for decoding” includes the processor (23) executing software configured to access data stored in the cache RAM (26a) and decompress the data using video decompression and processing circuit (18), which sends the signal to the television (2). (Fig. 2).

The receiver of claim 16 further includes “means for receiving and decoding additional programme schedule data from the first network for either of the first or second broadcast network, in response to a user request,” a means plus function clause under 35 U.S.C. 112(6). The structure corresponding to the “means for receiving and decoding” includes the processor (23) executing software configured to obtain sections of the schedule as required from the fast continuous transmission on the EPG transponder of the satellite service, which will also include the schedule for the terrestrial listings schedule. (page 22, line 22 – page 23, line 9). Thus, a receiver/decoder (e.g., a satellite capable box) will obtain its schedule from the first network (e.g., the satellite EPG transponder) for either the first or second network (e.g., the satellite or terrestrial network) on demand and only caches the piece of the schedule currently in use (i.e., requested by the user). (page 23, lines 5-9).

Claims 32 and 34-36

Claim 32, 34, 35, and 36 depend indirectly from independent claim 9 via intermediate claims 12, 27, 28, and 29 respectively. These claims recite that each channel includes one or more indicators, and the receiver comprises means responsive to the indicators for controlling display of information. The structure corresponding to the “means responsive to the indicators” includes processor (23) executing software configured to read attributes given to services on a sub-bouquet basis including navigation and display indicators. (page 20, lines 1-6).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Whether claims 9-13 and 26-36 are unpatentable under 35 U.S.C. § 102(e) as being anticipated by Ellis et al. (U.S. 5,760,821).

- B. Whether claims 14, 15, and 40 are unpatentable under 35 U.S.C. § 102(e) as being anticipated by Ellis (U.S. 2007/0271582).
- C. Whether claims 1-3, 5-8, 22, 38 and 39 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Ellis et al. (U.S. 5,548,338) in view of Yuen et al. (U.S. 6,028,599).
- D. Whether claims 4 and 23- 25 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Ellis '338 in view of Yuen '599 and further in view of Terasawa et al. (U.S. 6,147,714).
- E. Whether claims 16-18 and 37 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Usui et al. (U.S. 5,808,694) in view of Eyer et al. (U.S. 6,160,545), Yuen (WO 97/47136) and Eyer et al. (U.S. 5,801,753).

VII. ARGUMENT

A. Claims 9-13 and 26-36 are not anticipated by Ellis et al. (U.S. 5,760,821).

The Examiner rejected claims 9-13 and 26-36 under 35 U.S.C. § 102(e), as being anticipated by Ellis et al. (U.S. 5,760,821). (Office Action, pp. 8-11, ¶ 15).¹ The Examiner contends that Ellis et al. '821 discloses all of the elements of claims 9-13 and 26-36. Appellants respectfully submit that the Examiner is in error in this rejection.

The Examiner indicates that the subject matter of claim 9 (channel identity and channel subset identity) is disclosed in Ellis '821 at column 3, lines 49-65, which describes groups assigned to a set-top box. Appellants disagree that Ellis '821 discloses all element of claim 9. In particular, Ellis '821 does not disclose:

means for comparing the channel identity and channel subset identity for a channel in a received signal with the reference channel and channel subset identities and means for outputting the received television signal for display of the programme or other services defined thereby depending on the comparison

¹ Unless otherwise noted, all citations to "Office Action" are to the Office Action mailed March 19, 2009.

Ellis '821 is entirely concerned with the filtering of EPG schedule data so that only the schedule information corresponding to the user's service environment is stored (see abstract). The reason for filtering the schedule data is that, in the context of cable TV broadcast, the channels available vary between regions (See col. 1, lines 41-47). Thus, Ellis discloses an information localization filter (53) which uses the group numbers as filtering criteria to transform a national program schedule (10) into a localized version (55) which is then stored in the set-top box. (See Ellis '821, Fig. 2; col. 3, lines 30-35; col. 4, lines 3-5).

In contrast to the teachings of Ellis '821, claim 9 relates to outputting a received TV signal depending on a comparison between channel identities and subset identities for the channel and for the receiver. Claim 9 has nothing to do with the selection of EPG schedule data. Ellis does not teach anything about selection of available channels, it being assumed that a receiver will be permitted to receive all available channels within a region. Bennington does not add anything relevant to the teaching of Ellis.

Thus, Ellis '821 does not disclose any elements or components which perform the recited functions of "comparing the channel identity and channel subset identity for a channel in a received signal with the reference channel and channel subset identities" and "outputting the received television signal for display of the programme or other services defined thereby depending on the comparison." Thus, Ellis '821 does not disclose the recited functions corresponding to the "means for comparing" and the "means for outputting" limitations.

Claims 10-13 and 26-36 depend directly or indirectly from claim 9 and thus incorporate all limitations of claim 9.

Accordingly, Appellants submit that the subject matter of claims 9-13 and 26-36 is not anticipated by Ellis et al. '821. Reversal of this rejection is respectfully requested.

B. Claims 14, 15, and 40 are not anticipated by Ellis (U.S. 2007/0271582) ("Ellis 2").

The Examiner has rejected claims 14, 15, and 40 under 35 U.S.C. § 102(e), as being anticipated by Ellis (U.S. 2007/0271582) ("Ellis 2") (Office Action, p. 11, ¶ 16). The Examiner

contends that Ellis 2 discloses all of the elements of claims 14, 15, and 40. Appellants submit that the Examiner is in error in this rejection.

Claim 14 requires that a receiver receives “signals [including] sorting data defining a sorted list,” and then display a programme schedule in an order depending on the sorted list. Moreover, the structure corresponding to the “means for sorting” includes the processor (23) executing software configured to compute index lists of events sorted by sorting data, such as time or alphabetically, at the head end and to transmit the sorted index lists. (page 20, lines 13-14).

In evaluating the patentability of a “means-plus-function” clause, the PTO must consider the structure described in the applicants’ specification that corresponds to the recited means. See 35 U.S.C. §112(6); In re Donaldson, 16 F.3d 1189, 1195; 29 USPQ2d 1845 (Fed. Cir. 1994) (holding that when considering claim language written in means-plus-function format under 35 U.S.C. §112(6), “the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination.”). Ellis 2 does not anticipate claim 14 because it does not disclose the structure corresponding to the “means for sorting.” See In re Donaldson, supra.

Furthermore, Ellis 2 does not anticipate claim 14 because it does not disclose components or elements that perform the functions recited in claim 14. In particular, Ellis 2 does not disclose components that “[sort] the scheduling data depending on the sorting data to produce output signals defining an image of selected events in the programme schedule for display as a sorted schedule on a television screen in an order depending on the sorted list.” Thus, Ellis 2 does not disclose the recited function corresponding to the “means for sorting” limitation.

In Ellis 2, a user may create a profile containing attributes of preferred programming and the user may specify a priority or sort order in which programs satisfying the preference criteria in a profile are displayed or tuned to:

[0075] The preference attributes the user selects may be organized in a profile (sometimes called a preference profile or a favorites profile). If there are several users (e.g., different family members) associated with a given program guide, each user may have his own

profile. A profile may contain more than one preference attribute of the same type. For example, preference profile 80 of FIG. 3 has three series preference attributes (series Nos. 1, 2, and 3), four genre preference attributes (movies, game shows, news, baseball, and comedy), and two actor preference attributes (John Wayne and Arnold Schwarzenegger).

[0076] If desired, the user may specify a priority or sort order in which programs satisfying the preference criteria in a profile are to be displayed or tuned to. When listing or tuning to programs that satisfy a profile, the programs matching the highest priority preference attributes may be tuned to (with set-top box 44) or listed (on the display of television 48) first. This feature is particularly useful when a user wishes to further simplify the process of selecting programs of interest.

(Ellis 2, page 4). Thus, Ellis 2 describes that the program listings may be sorted according to a user-defined priority or sort order for programs satisfying the preference criteria in the user's profile. There is no disclosure in Ellis 2 of *receiving* a sorted list, nor is there disclosure of a processor executing software configured to compute index lists of events sorted by sorting data at the head end and to transmit the sorted index lists.

In Appellants' first Appeal Brief filed December 9, 2008, Appellants argued that while Ellis 2 discloses a sorted list, that list is created locally by the user and is not received as part of the television signals, as required by claim 14. The examiner objects that "the claims do not disclose sending the sorted list over the air" (Office Action at p. 4). But claim 14 does recite: "...receiving television signals in a plurality of channels..." and "...the signals include sorting data defining a sorted list..." Hence, claim 14 requires that the sorted list is included in the television signals received by the receiver. Although not necessarily received 'over the air', since the television signals could be received via cable for example, it is clear that the above features are not disclosed or suggested by Ellis 2.

Claims 15 and 40 depend directly or indirectly from claim 14 and thus incorporate all limitations of claim 14.

Accordingly, Appellants submit that the subject matter of claims 14, 15, and 40 is not anticipated by Ellis 2. Reversal of this rejection is respectfully requested.

C. Claims 1-3, 5-8, 22, 38 and 39 are not obvious over Ellis et al. (U.S. 5,548,338) in view of Yuen et al. (U.S. 6,028,599).

The Examiner has rejected claims 1-3, 5-8, 22, 38 and 39 under 35 U.S.C. § 103(a), as being obvious over Ellis et al. (U.S. 5,548,338) in view of Yuen et al. (U.S. 6,028,599). (Office Action, pp. 12-16, ¶ 18). The Examiner acknowledges that Ellis '338 does not disclose means for receiving two versions of a dictionary, means for determining in which version of the dictionary the corresponding data is stored, or means for storing the most recently accessed version of the dictionary (Office Action, p. 13), but contends that it would have been obvious to one of ordinary skill in the art to modify Ellis '338 to include these features based on the teachings of Yuen '599. (Office Action, p. 14). Appellants respectfully disagree.

First, Ellis '338 does not teach or suggest the use of dictionaries as claimed by Appellants.

Citing the disclosure at column 8, lines 47-60 and column 9, lines 16-31, the Examiner contends that Ellis '338 discloses "[m]eans defining a dictionary or look up table and text portions" and "[m]eans for constructing the image of events using identified corresponding text portions." (Office Action, p. 13). Appellants strongly disagree. Ellis '338 describes a Huffman look-up table (500) and a Huffman binary tree (600) for decompressing EPG (Electronic Programming Guide) data (Ellis '338, col. 8, lines 47-52). A Huffman tree is a binary based coding method, not a word-based method that would use a dictionary. Figures 5 and 6 of Ellis '338 showing the Huffman table (500) and the Huffman tree (600), respectively, are reproduced below:

500

SYMBOL	HUFFMAN CODE
A	110
B	0101
C	0111
D	01101
E	10
F	01100
G	011101
H	01111
T	00
-	111
HE	011100

FIG.5

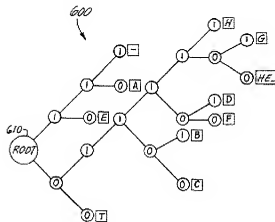


FIG.6

The Huffman table and Huffman tree of Ellis' 338 clearly do not correspond to the claimed dictionary including corresponding text portions that can be expanded into programme schedule data. In fact, Ellis' 338 teaches away from the use of a text-based dictionary:

[T]o avoid the need to update data used in decompression, the decompression operation should not rely on the use of repeated words or phrases. EPG data contains large proportions of unique or rare proper nouns. Also, popular words or phrases are cyclical (e.g., "basketball" is popular in the spring while "football" is popular in the fall) and change over time (e.g., names, current events, popular shows, etc. change over time). Because word selection in an EPG is

broad and transient, a dictionary keyed to individual words or phrases is inefficient and should be avoided.

(Ellis '338, col. 1, line 64 – col. 2, line 6 (emphasis added)).

Second, features of claim 1 acknowledged by the Examiner to be lacking from Ellis '338 are, in fact, not taught by Yuen '599. In particular, Yuen '599, like Ellis '338, lacks any disclosure of components or elements (i.e., “means”) that perform the functions of “receiving data defining two versions of a dictionary representing text portions,” “determining in which version of the dictionary the corresponding text portion is stored,” or “storing only the most recently accessed version of the dictionary.” Yuen does not disclose anything at all about dictionaries for expanding compressed schedule data.

The passages of Yuen cited by the Examiner as supporting the rejection do not, in fact, teach the subject matter for which they're cited. In particular, the cited passage at col. 3, lines 1 to 6 refers to updates to the schedule data itself and not to any dictionary. The cited passage at col. 4, lines 46-67 describes that two levels of detail of programme description are available for selection, not two versions of a decompression dictionary. Figure 11 and the cited passage at col. 10, lines 1-14 disclose the selection of which parts of the schedule to store. The cited passage at col. 5, lines 1-12 explains that the database includes a static area including fixed tables for storing data not subject to frequent change and a dynamic area for storing data which is frequently updated. The cited passage at col. 10, lines 50-64 describes storage of data in free positions in memory and periodically re-ordering the memory so that free space is grouped contiguously. In the cited Figure 13, elements 22 and 24 are a programme schedule memory and a microprocessor, respectively. None of these passages discloses receiving two dictionaries, determining in which dictionary text is stored, and storing only the most recently accessed dictionary.

Moreover, even if Yuen '599 included relevant disclosures regarding dictionaries, a person having ordinary skill in the art (“PHOSITA”) would not have combined the teachings of Ellis '338 and Yuen '599.

Even after the Supreme Court's decision in *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), evidence that a prior art reference teaches away from a combination or modification is

still relevant to the determination of obviousness and nonobviousness. “A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the patent set out in the reference, or would be led in a direction divergent from the path that was taken by the applicants. *In re Kubin*, 561 F.3d 1351, 1357 (Fed. Cir. 2009) (quoting *In re Gurley*, 27 F.3d 551, 552 (Fed. Cir. 1994)). The Patent Office is required to consider evidence that the prior art taught away from the claimed invention when it is properly presented. See *In re Sullivan*, 498 F.3d 1345, 1352-53 (Fed. Cir. 2007) (vacating and remanding Board’s affirmation of final rejection for consideration of evidence that prior art taught away from claimed invention, that invention exhibited unexpected properties, and that experts expected experiments to fail).

As explained above, Ellis ‘338 teaches the use of a Huffman tree for decompression of EPG data, not a dictionary, and – as evident from the excerpt of Ellis ‘338 quoted above – teaches strongly away from selection of different dictionary versions and storing only the most recently accessed version. But, even if Ellis’s Huffman tree were considered a dictionary, it would be only a single version dictionary. In the specific embodiment described in Ellis ‘338, the Huffman tree used for decompression is stored in ROM (54) (see col. 3, lines 51-54; col. 8, lines 58-61), and is therefore not variable.

The Examiner points to col. 3, lines 26-35 as disclosing “receiving software updates (Column 3, lines 26-35), using the Huffman coding that constructs the lookup table and binary tree for stored [sic] corresponding text portion....” (Office Action, p. 13). But that passage does not suggest that the software updates are connected in any way with the Huffman table. Instead, Ellis ‘338 distinguishes between the Huffman tree, which is stored in ROM (54) and is therefore unchangeable, and the application software which is stored in EEPROM (56) and therefore presumably changeable. (See col. 3, lines 51-54). The software updates in col. 3, line 34 must therefore be understood as updates to the application software and not to the Huffman tree.

Accordingly, Ellis ‘338 does not teach updating the Huffman tree and expressly teaches away from using dictionaries to avoid the need to update data.

For the forgoing reasons, Appellants submit that independent claim 1 is not obvious from the teachings of Ellis '338 and Yuen '599.

Claims 2, 3, 5-8, 22, 38, and 39 depend from claim 1 and thus incorporate all limitations of claim 1.

Accordingly, Applicants submit that the subject matter of claims 1-3, 5-8, 22, 38 and 39 are not rendered obvious by Ellis '338 in view of Yuen '599. Reversal of this rejection is requested.

D. Claims 4 and 23- 25 are not obvious over Ellis '338 in view of Yuen '599 and further in view of Terasawa et al. (U.S. 6,147,714).

The Examiner has rejected claims 4 and 23- 25 under 35 U.S.C. § 103(a), as being obvious over Ellis '338 in view of Yuen '599 and further in view of Terasawa et al. (U.S. 6,147,714). (Office Action, p. 16). The Examiner contends that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination to include the text portions comprise [sic] a short event name . . . as taught by Terasawa in order to provide a succinct title to the user for easy selection as is well known in the art." (*Id.*) Appellants submit that the Examiner is in error in this rejection.

Claim 4 and 23-25 depend, directly or indirectly, from claim 1. As detailed above, Ellis '338 and Yuen '599 do not render obvious the subject matter of claim 1. Terasawa et al. does not cure the deficiencies of Ellis '338 and Yuen '599.

The Examiner contends that Ellis '338 discloses, at column 9, table 4, text portions of dictionaries which comprise long titles. (*Id.*) Appellants strongly disagree. As explained above, however, Ellis '338 does not describe dictionaries with text portions and, in fact, teaches away from the use of such dictionaries. Table 4 merely illustrates the amount of information, for transmission and storage purposes, that may comprise typical, uncompressed EPG data. For example, EPG will include long titles, descriptions, promotions, package descriptions, and subscription. Illustrative EPG data may comprise 444 long titles of 25 bytes each, for a total of 11,100 bytes of information. Table 4 does not describe a dictionary having text portions.

Terasawa '714 is cited for its alleged disclosure, at column 7, line 55 – column 8, line 1, of text portions comprising short event names (Office Action, p. 16). But Terasawa '714 fails to disclose any components or elements (i.e., “means”) that perform the functions of “receiving data defining two versions of a dictionary representing text portions,” “determining in which version of the dictionary the corresponding text portion is stored,” or “storing only the most recently accessed version of the dictionary.” The system of Terasawa '714 uses a single dictionary that is stored in ROM, thereby indicating that the dictionary is never changed. (*See* Terasawa '714, col. 15, lines 54-65)

Accordingly, Applicants submit that the subject matter of claims 4 and 23-25 are not rendered obvious by Ellis '338 in view of Yuen '599, and further in view of Terasawa '714. Reversal of this rejection is requested.

E. Claims 16-18 and 37 are not obvious over Usui et al. (U.S. 5,808,694) in view of Yuen (WO 97/47136), Eyer '545, and Eyer et al. (U.S. 5,801,753).

The Examiner has rejected claims 16-18 and 37 under 35 U.S.C. § 103(a), as being obvious over Usui et al. (U.S. 5,808,694) in view of Yuen (WO 97/47136) (“Yuen 2”), Eyer et al. '545, and Eyer et al. (U.S. 5,801,753). (Office Action, pp. 17-21, ¶20). Appellants submit that the Examiner is in error in this rejection.

Usui '694, Yuen 2, Eyer '545, and Eyer '753 do not render claim 16 obvious because they disclose neither the function nor the structure corresponding to the “means for receiving and decoding additional programme schedule data from the first network for either of the first or second broadcast network, in response to a user request.”

The structure corresponding to the “means for receiving and decoding additional programme schedule data from the first network,” includes the processor (23) executing software configured to obtain sections of the schedule as required from the fast continuous transmission on the EPG transponder of the satellite service, which will also include the schedule for the terrestrial listings schedule. (page 22, line 22 – page 23, line 4). Thus, a receiver/decoder (e.g., a satellite capable box) will obtain its schedule from the first network (e.g., the satellite EPG transponder) for either the first or second network (e.g., the satellite or

terrestrial network) on demand and only caches the piece of the schedule currently in use (i.e., requested by the user). (page 23, lines 5-9).

The Examiner acknowledges that Usui is silent with respect to “means for receiving and decoding additional programme schedule data from the first network for either the first or second broadcast network, in response to user request.” (Office Action at p. 18). The Examiner contends this feature of the invention is taught in Eyer ‘545. Appellants respectfully disagree.

In response to Appellants’ first Appeal Brief, the Examiner responds that Appellants argued that “neither Eyer nor Usui fails to teach or suggest that data is transmitted over both the first and second network.” (Office Action at 6). Aside from the grammatically incorrect double negative, this statement misrepresents Appellants’ argument.

Appellants’ actual argument is that neither Eyer ‘545 nor Usui ‘694 teaches a system that receives and caches program schedule data over first and second networks, the program schedule data for the first network being broadcast at a faster rate than the program schedule data for the second network, and further including an “on-demand” mode enabled by means for receiving and decoding additional program schedule data from the first network for either the first or second network in response to a user request – as described in the specification at p. 22, line 21 through p. 23, line 10.

Usui ‘694 discloses at Figure 23 only that schedule data for first and second networks may be received from their respective networks, and combined at the receiver.

Eyer ‘545 discloses that EPG data for both satellite and CATV networks is broadcast over the satellite network only (See col. 5, lines 37-44 and 62-67), and therefore does not disclose the feature of claim 16 that the first and second networks each carry schedule data for their respective networks. The Examiner identifies the passage at col. 9, lines 56-67 as disclosing the “user request” of claim 16, but that passage is concerned with the selection of schedule data for display, not for reception.

Yuen 2 actually teaches away from combining EPG data from two different networks on the same network (see page 1, line 36 to page 2, line 4), so contradicts Eyer. Instead, Yuen 2

discloses various techniques for receiving schedule data for a network from the respective network, and combining the schedule data at the receiver (see e.g. claim 11).

Eyer '753 is cited for its disclosure of trickle data transmitted at lower rate (Office Action at p. 19), but Eyer '753 has no disclosure to overcome the shortcomings of Eyer '545 and Usui '694 with respect to the "means for receiving and decoding additional program data"

In summary, Usui '694 and Yuen 2 disclose combining EPG data for first and second networks from the respective networks. Eyer '545 and Eyer '753 disclose obtaining EPG for first and second networks only from one of the networks. No combination of these references would achieve a system where EPG data for first and second networks is normally from the respective networks, but additional schedule data is received from the first network for either of the first and second networks in response to a user request. Thus, the cited reference do not teach or suggest all element of independent claim 16.

Claims 17, 18, and 37 depend from claim 16 and therefore incorporate all limitations of claim 16.

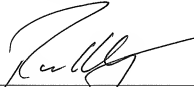
Accordingly, Appellants submit that claims 16-18 and 37 are not rendered obvious by Usui '694 in view of Yuen 2, Eyer '545, and Eyer '753. Reversal of this rejection is requested.

CONTINGENT AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

Although no fees are believed due, if any fee is due, please charge said fee to Deposit
Account No. 02-2135.

Respectfully submitted,

Date: August 19, 2009 By



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VIII. CLAIMS APPENDIX

The following claims are involved in this appeal:

1: A receiver for receiving television signals in a plurality of channels each defining a television programme, wherein at least a signal in one of the channels includes compressed program schedule data defining broadcast events in the channels, and for producing output signals defining an image of the broadcast events in the programme schedule for displaying on a television screen, the receiver comprising:

means for receiving data defining two versions of a dictionary representing text portions,

means for expanding the programme schedule data by identifying corresponding text portions in the dictionary,

means for determining in which version of the dictionary the corresponding text portion is stored,

means for constructing the image of events using the identified corresponding text portions,
and

means for storing only the most recently accessed version of the dictionary.

2: A receiver as claimed in claim 1, wherein the text portions comprise an extended service description.

3: A receiver as claimed in claim 1, wherein the text portions comprise an event name.

4: A receiver as claimed in claim 1, wherein the text portions comprise a short event name.

5: A receiver as claimed in claim 1, wherein the text portions comprise an extended event description.

6: A receiver as claimed in claim 1, wherein the text portions comprise a special event message.

7: A receiver as claimed in claim 1, comprising means for receiving the data of the other version of the dictionary and means for replacing the data of the one version of the dictionary in the storing means with the data of the other version of the dictionary when the data for the text portion is determined to be stored in the other version of the dictionary.

8: A receiver as claimed in claim 1, further comprising means for storing a default dictionary.

9: A receiver for receiving television signals in a plurality of channels each defining a television programme and/or other services provided by a broadcaster, and a channel set identity and a channel subset identity for the channel, the receiver comprising means for storing a reference channel set identity and one or more reference channel subset identities, means for comparing the channel identity and channel subset identity for a channel in a received signal with the reference channel and channel subset identities and means for outputting the received television signal for display of the programme or other services defined thereby depending on the comparison.

10: A receiver as claimed in claim 9, wherein the storing means is arranged to store a common channel subset identifying programmes and/or other services receivable independent of the receivers location and a regional channel subset identifying programmes and/or other services receivable depending on the location of the receiver.

11: A receiver as claimed in claim 9, wherein each channel has associated with it a logical channel number which varies on a channel subset basis, the receiver comprising means for displaying a list of programmes and/or other services containing the logical channel number.

12: A receiver as claimed in claim 9, wherein each channel has associated with it an order channel number which varies on a channel subset basis, the receiver comprising means for displaying a list of programmes and/or other services depending the order channel number.

13: A receiver as claimed in claim 9, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

14: A receiver for receiving television signals in a plurality of channels each defining a television programme, wherein the signals include sorting data defining a sorted list and scheduling data defining a schedule of programme events, the receiver comprising:

means for sorting the scheduling data depending on the sorting data to produce output signals defining an image of selected events in the programme schedule for display as a sorted schedule on a television screen in an order depending on the sorted list.

15: A receiver as claimed in claim 14, wherein the sorting data includes data to enable events in the schedule defined by the schedule data to be selected for display in the sorted schedule depending on at least one of genre, sub-genre or market oriented data.

16: A receiver for receiving television signals in a first plurality of channels broadcast in a first broadcast network that include programme schedule data for the first network, for receiving television signals in a second plurality of channels broadcast in a second broadcast network that include programme schedule data for the second network, and for receiving programme schedule data broadcast in the first network at a faster rate than in the second network, the receiver comprising:

a cache store for storing a portion of programme schedule data for the first and/or the second network transmitted from time to time in at least one of the channels broadcast in the first network and/or the second network,

means for decoding the data in the cache store for display of a programme schedule of the first or second broadcast network, and

means for receiving and decoding additional programme schedule data from the first network for either of the first or second broadcast network, in response to a user request.

17: A receiver as claimed in claim 16, wherein the data stored in the cache store is updated when new data is transmitted in the first or second network.

Claim 18: A receiver as claimed in claim 16, wherein the broadcast programme schedule data comprises depth data for specific models of receiver, the receiver being arranged to receive depth data pertaining thereto, and the amount of data stored in the cache store is dependent on the depth data.

19-21: (Cancelled).

22: A receiver as claimed in claim 2, wherein the text portions comprise an event name.

23: A receiver as claimed in claim 2, wherein the text portions comprise a short event name.

24: A receiver as claimed in claim 3, wherein the text portions comprise a short event name.

25: A receiver as claimed in claim 22, wherein the text portions comprise a short event name.

26: A receiver as claimed in claim 10, wherein each channel has associated with it a logical channel number which varies on a channel subset basis, the receiver comprising means for displaying a list of programmes and/or other services containing the logical channel number.

27: A receiver as claimed in claim 10, wherein each channel has associated with it an order channel number which varies on a channel subset basis, the receiver comprising means for displaying a list of programmes and/or other services depending the order channel number.

28: A receiver as claimed in claim 11, wherein each channel has associated with it an order channel number which varies on a channel subset basis, the receiver comprising means for displaying a list of programmes and/or other services depending the order channel number.

29: A receiver as claimed in claim 26, wherein each channel has associated with it an order channel number which varies on a channel subset basis, the receiver comprising means for displaying a list of programmes and/or other services depending the order channel number.

30: A receiver as claimed in claim 10, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

31: A receiver as claimed in claim 11, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

32: A receiver as claimed in claim 12, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

33: A receiver as claimed in claim 26, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

34: A receiver as claimed in claim 27, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

35: A receiver as claimed in claim 28, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

36: A receiver as claimed in claim 29, wherein each channel has associated with it one or more indicators, the receiver comprising means responsive to the indicators for controlling display of programme and/or service information.

37: A receiver as claimed in claim 17, wherein the broadcast programme schedule data comprises depth data for specific models of receiver, the receiver being arranged to receive depth data pertaining thereto, and the amount of data stored in the cache store is dependent on the depth data.

38: A receiver as claimed in claim 1, wherein the most-recently accessed version of the dictionary is stored in a volatile memory.

39: A receiver as claimed in claim 38, wherein the data defines a further dictionary that is stored in a non-volatile memory.

40: A receiver as claimed in claim 14, wherein the receiver further comprises means for filtering the schedule data such that the sorted schedule is displayed as a filtered schedule.

IX. EVIDENCE APPENDIX

There has been no evidence submitted to or entered by the examiner that is being relied upon by Appellants in this appeal.

X. RELATED PROCEEDINGS APPENDIX

There have been no decisions rendered by a court or the Board in any related proceedings.